

MULTI-MEDIA ROTATING SOOTBLOWER AND AUTOMATIC INDUSTRIAL BOILER CLEANING SYSTEM

ABSTRACT OF THE DISCLOSURE

A multi-media rotating sootblower that includes multiple rotating and individually controlled cleaning fluid applicators, such as a set of steam nozzles and two sets of water nozzles, and an automatic boiler cleaning system using these sootblowers. The boiler superheater typically includes a system of these sootblowers to clean a number of large platens that are arranged in rows. The boiler may also include additional boiler cleaning equipment, including water cannons to clean the furnace, and conventional steam sootblowers to clean other heat exchangers of the boiler. A number of sensors, including heat transfer gauges that measure the heat transfer at the furnace wall, strain gauges that measure the weight of slag deposits on platens, and boiler cameras are used to monitor slag accumulations within the boiler. A control system uses this sensor data to automatically operate the boiler cleaning system to implement an automatic boiler cleaning regimen.